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EXAMINER

CUEVAS, PEDRO J

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,926	Applicant(s) LAUFENBERG ET AL.	
	Examiner PEDRO J. CUEVAS	Art Unit 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on November 16, 2009, with respect to the drawing objections have been fully considered but they are not persuasive.

In response to applicant's argument that: "*Figure 3 shows each controlling area and the boundaries thereof. Figure 4 shows a timing diagram that illustrates a performing of the method of the claimed subject matter. As described beginning on page 6, line 25 of the Substitute Specification, the timing diagram of Figure 4 corresponds to an embodiment in which the method transitions between the first, second and third controlling areas shown in Figure 3. The conditions for the transitions (the method steps) are fully described.*", it must be noted that:

Figure 3 shows a plot of the correlation between voltage level and torque level, without any information about how were those levels obtained and the steps performed by the claimed controller to correlate said voltage and torque levels;

Figure 4 shows the voltage variation over time resulting from the operation of the claimed invention, which structural components and steps of operation are not being disclosed;

the steps used by the controller to transitions between the first, second and third "controlling areas" are not disclosed;

the "conditions for the transitions" are the set of electrical and mechanical values obtained by a plurality of undisclosed sensors connected in an undisclosed manner to the claimed controller, which then uses and undisclosed set of instructions (method steps) to enable the claimed invention to transition between the claimed "areas of operation"; and

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there is no language in the applicant's disclosure which will enable one with ordinary skill in the art to build and use the claimed invention, in order to obtain the results shown in Figures 3 and 4.

2. Applicant's arguments filed on November 16, 2009, with respect to the rejection(s) of claim(s) 16-30 under 35 U.S.C. § 112 have been fully considered but they are not persuasive.

3. In response to applicant's argument that "*The Office Action has not articulated any reason why the claims are not enabled based on these factors. The Office Action conclusorily asserts that essential structure and/or steps are omitted from the claims. Thus, the Office Action's assertions as to enablement are merely conclusory in nature rather than being based On an analysis of the aforementioned factors, as required by the MPEP.*", it must be noted that paragraph 9 of the Office Action mailed on August 19, 2009 clearly states:

"The controller's design or operational program responsible for obtaining the operational parameters of the device and performing the control steps that result in the output shown in Figures 3 and 4 are critical and essential to the practice of the invention with undue experimentation."

It must be noted that the applicant's disclosure is merely a recitation of the operational parameters used and obtained by the claimed invention. There is no language in the specification that will enable one with ordinary skill in the art to build and use a controller, which must have and undisclosed electrical circuit arrangement, in order to obtain the operational parameters and perform a plurality of undisclosed steps which will result in the operation of the claimed invention.

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4. In response to applicant's argument that "*claim 16 has been rewritten to better clarify the role of the first and second areas of operation.*", it must be noted that the amendments to claim 16 do not present any language regarding the controller's configuration, the steps for providing an "area of operation", the steps for regulating a braking torque, or the steps for "transitioning" between the "areas of operation".

5. In response to applicant's argument that "*As to the term phrase of "a function of" (claims 19, 23 and 27), it is respectfully submitted that one of ordinary skill in the art would have knowledge of the requisite degree of control required, e.g., using conventional setpoint control techniques. Accordingly, the control of torque as a function of a maximum allowable change in torque, and as a function of time, would be understood by one of ordinary skill in the art.*", it must be noted that none of the particular function(s), degree(s) of control required and the "conventional" setpoint control technique(s) used by the applicant have not been disclosed.

6. In response to applicant's argument that "*As to the term phrase of "torque influencing variable" (claims 23 and 24), the Office Action points out that there exists a plurality of variables that influence torque. Since these variables are well known, it is unnecessary to specify which variable is used, since any one of these variables may be suitable for use with the method of the claimed subject matter. As to the degree of influence required, as mentioned above, conventional setpoint control techniques are sufficient to perform the controlling of the torque. Further, one of ordinary skill in the art would understand the degree to which any one variable would be adjusted in order to achieve a corresponding change in torque.*", it must be noted that the applicant has not disclosed how or which "torque influencing variable" is used in the undisclosed method of the claimed subject matter.

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7. In response to applicant's argument that "*As to the term phrase of "according to a functional relationship" (claims 24 and 28), the functional relationship refers to a relationship between a torque influencing variable and the torque. A change in the variable causes a corresponding change in torque. The change can be predicted since the influence of the variable on torque is known in the art, and may be recorded in the form of a characteristics map.*", it must be noted that the particular relationship which the applicant uses to control the torque has not been disclosed.

8. In response to applicant's argument that "*Claims 19 and 22 to 24 depend from claim 16, which is directed to an electrical device (i.e., a machine) for controlling a generator in an electrical system of a motor vehicle. Accordingly, claims 19 and 22 to 24 are directed to statutory subject matter, since base claim 16 refers to a machine.*", it must be noted that the only structural limitations present in claim 16 are a generator coupled to an engine, said generator comprising a controller. All other language in claim 16 is directed to what the controller does according to a plurality of operational parameters using undisclosed operational steps.

Drawings

9. The drawings were received on November 16, 2009. These drawings are acceptable.

10. The drawings are objected to under 37 CFR 1.83(a) because they are incomplete. 37

CFR 1.83(a) reads as follows:

The drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box). In addition, tables and sequence listings that are included in the specification are, except for applications filed under 35 U.S.C. 371, not permitted to be included in the drawings.

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The drawings must show every feature of the invention specified in the claims.

Therefore, a flowchart showing the sequence of steps which compose the method of controlling the operation of a generator and a characteristic map defining the functional relationships of the claimed invention must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

11. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the controller's first and second area of operation as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

12. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claims 16-34 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The structure and steps required to perform voltage and torque control are critical and essential to the practice of the invention, are not included in the claim(s) and are not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The claimed controller must have a particular and specific design which allows it to perform a sequence of steps that result in the output shown in Figures 3 and 4. In the alternative, a programmable controller must have a particular program or sequence of instructions that perform a sequence of steps that result in the output shown in Figures 3 and 4. The controller's design or operational program responsible for obtaining the operational parameters of the device and performing the control steps that result in the output shown in Figures 3 and 4 are critical and essential to the practice of the invention with undue experimentation.

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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16. Claims 16, 18-24 and 26-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It must be noted that the language on lines 5-6 of claim 16 (“*a first area of operation in which a voltage control is performed, and at least one second area of operation in which a torque control is performed.*”) is merely “result” language which cannot be relied upon to define over the prior art.

Also, the term “*area of operation*” in claim 16 is a relative term which renders the claim indefinite. The term “*area of operation*” is not defined by the claim(s), the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

17. The term “*a function of*” in claims 19, 23 and 27 is a relative term which renders the claims indefinite. The term “*a function of*” is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

If the “acts” of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. *Schrader*, 22F.3d at 294-95, 30USPQ2d at 1458-59. Thus, a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process. MPEP 2106.

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18. The term “*torque-influencing variable*” in claims 23 and 24 is a relative term which renders the claim indefinite. The term “*torque-influencing variable*” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. In any motor vehicle power generating system, a plurality of variables (e.g. mechanical load, electrical load, motor speed, generator speed, motor current, generator current, etc.) are individually or in combination capable of influence torque. Which one, and to what degree, is the one influencing the torque in the claimed system?

19. The term “*according to a functional relationship*” in claims 24 and 28 is a relative term which renders the claim indefinite. The term “*according to a functional relationship*” is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

20. Claims 16-24 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are:

means for obtaining the operating characteristics or the system; and

means for generating the area(s) of operating characteristics.

It should be emphasized that “apparatus claims must be structurally distinguishable from the prior art.” MPEP 2114. In *In re Danly*, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959), it was held that apparatus claims must be distinguished from prior art in terms of structure rather than function. In *Hewlett-Packard Co. v Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15

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USPQ2d 1525, 1528 (Fed. Cir. 1990), the court held that: “Apparatus claims cover what a device is, not what it does” (emphases in original). To emphasize the point further, the court added: “An invention need not operate differently than the prior art to be patentable, but need only be different” (emphases in original).

21. Since the applicant affirmed that the claimed invention uses conventional setpoint control techniques and that the claimed invention uses conventional torque influencing variables, the examiner has interpreted the claims based on the actual structural parameters recited therein. The following rejection(s) are based on the broadest possible interpretation of most of the claims.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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24. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

25. Claims 16-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,017,739 to Hapeman et al.

Hapeman et al. clearly teaches the construction of a lifting force responsive load control system, comprising:

- a controller (Figure 1) configured to control a voltage of the generator by outputting a control signal to the generator in response to changes in the generator voltage;

- wherein the generator is coupled to an engine (Prime Mover 10) to generate electrical power.

However, it fails present and plot the output of said controller in such a way that:

- a first area of operation based on the value of the generator voltage, in which a voltage control is performed to regulate the generator voltage, to the exclusion of performing a torque control to regulate a braking torque exerted by the generator, and

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at least one second area of operation based on the value of the generator voltage, in which the torque control is performed to the exclusion of performing the voltage control, the controller transitioning from the first area to the at least one second area when the generator voltage goes beyond one of a first upper threshold value and a first lower threshold value, the first upper threshold value and the first lower threshold value being defined by a boundary of the first area; are provided.

It would have been obvious to one skilled in the art at the time the invention was made to use well known and “*conventional setpoint control techniques*” (Applicant’s own Remarks, page 11, line 27) with any well known torque influencing variable (Applicant’s own Remarks, page 11, lines 30-37) on the operational instructions used by the controller disclosed by Hapeman et al. for the purpose of providing a voltage output plot having a plurality of areas of operation defined by a plurality of conventional parameters obtained using conventional circuit control functions.

26. With regards to claim 17, Hapeman et al. disclose the width of the first area and the second area being defined according to the value of at least one operating parameter (current) of the electrical device that influences one of the torque and the generator voltage.

27. With regards to claim 18, Hapeman et al. disclose the first area for the voltage control extends a specified range (0-700 V) from about a setpoint voltage (Voltage Level 2).

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28. With regards to claims 19 and 31, it would have been obvious to one skilled in the art at the time the invention was made to define the first area as a function of a maximum allowable change in torque.

29. With regards to claim 20, it would have been obvious to one skilled in the art at the time the invention was made to provide two second areas for the torque control, said two areas extending on both sides of the first area for the voltage control.

30. With regards to claim 21, Hapeman et al. disclose the at least one second area for the torque control lies within a voltage range defined by two voltage boundary values (700 V and $(700 - (2 \times VL1))$).

31. With regards to claim 22, it would have been obvious to one skilled in the art at the time the invention was made to control a torque variable to vary linearly in the at least one second area for the torque control.

32. With regards to claim 23, it would have been obvious to one skilled in the art at the time the invention was made to control a torque-influencing variable as a function of time and the at least one operating parameter of the electrical device in the at least one second area for the torque control.

33. With regards to claim 24, it would have been obvious to one skilled in the art at the time the invention was made to control a torque-influencing variable according to a functional relationship defined in a characteristics map (which has not been disclosed by the applicant) in the at least one second area for the torque control.

34. With regards to claim 25, it would have been obvious to one skilled in the art at the time the invention was made to use the controller disclosed by Hapeman et al. with a method for

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controlling the operation of a generator in connection with a vehicle electrical system of a motor vehicle, comprising the steps of:

recording a voltage of the generator (V_G), which is coupled to an engine (10) to generate electrical power;

determining (62) whether the recorded voltage lies in a specified range from a setpoint voltage;

performing a voltage control (Line F-G of Figure 2) in which the generator voltage is regulated with reference to the setpoint voltage, if the recorded voltage lies in the specified range from the setpoint voltage;

performing a torque control (Line G-H of Figure 2) in which a braking torque exerted by the generator is regulated, when the recorded voltage lies within a predetermined range defined by voltage boundary values; and

specifying a highest priority for the voltage control (54), if the recorded voltage lies outside the predetermined range defined by the voltage boundary values.

35. With regards to claim 26, Hapeman et al. disclose the step of performing torque control, wherein the torque is controlled to vary linearly (Line E).

36. With regards to claim 27, Hapeman et al. disclose the step of performing the torque control, wherein the torque is changed as a function of time and a specified operating parameter (current) of an electrical device that includes the generator and a controller, wherein a value of the specified operating parameter influences the torque.

37. With regards to claim 28, it would have been obvious to one skilled in the art at the time the invention was made to change the torque according to a functional relationship defined in a

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characteristic map (which has not been disclosed by the applicant) when performing torque control.

38. With regards to claim 29, Hapeman et al. disclose a width of a first area of operation in which a voltage control is performed and a width of at least one second area of operation in which a torque control is performed being predetermined.

39. With regards to claim 30, it would have been obvious to one skilled in the art at the time the invention was made to adjust at least one of: a) a width of the first area and a width of the at least one second area; and b) a width of a transition area between the first area and the at least second area, according to operating parameters of an electrical device that includes the generator and a controller, during a driving operation of the motor vehicle equipped with the electrical device, wherein the operating parameters influence (in and undisclosed manner) one of the generator voltage and the torque.

40. With regards to claim 31, it would have been obvious to one skilled in the art at the time the invention was made to define at least one of: a) a transition between the first area and the at least one second area; and b) a width of the first area and the at least one second area, according to the value of at least one operating parameter of the electrical device that influences one of the torque and the generator voltage, wherein the first upper threshold value and the first lower threshold value extend from a setpoint voltage lying between the first upper threshold value and the first lower threshold value, and wherein the first area is defined as a function of a maximum allowable change in torque.

41. With regards to claim 32, it would have been obvious to one skilled in the art at the time the invention was made to provide two second areas are provided for the torque control, wherein

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the two second areas extend on both sides of the first area for the voltage control, wherein the at least one second area for the torque control lies within a voltage range defined by two voltage boundary values, and wherein, in the at least one second area for the torque control, a torque variable is controlled to vary linearly.

42. With regards to claim 33, it would have been obvious to one skilled in the art at the time the invention was made to provide two second areas for the torque control, wherein the two second areas extend on both sides of the first area for the voltage control, wherein the at least one second area for the torque control lies within a voltage range defined by two voltage boundary values, and wherein, in the at least one second area for the torque control, a torque-influencing variable is controlled as a function of time and the at least one operating parameter of the electrical device.

43. With regards to claim 34, it would have been obvious to one skilled in the art at the time the invention was made to provide two second areas are provided for the torque control, wherein the two second areas extend on both sides of the first area for the voltage control, wherein the at least one second area for the torque control lies within a voltage range defined by two voltage boundary values, and wherein, in the at least one second area for the torque control, a torque-influencing variable is controlled according to a functional relationship defined in a characteristics map.

Conclusion

44. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEDRO J. CUEVAS whose telephone number is (571)272-2021. The examiner can normally be reached on M-F from 9:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T. C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pedro J. Cuevas/
Examiner, Art Unit 2839
February 2, 2010

/T C Patel/
Supervisory Patent Examiner, Art Unit 2839